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TI Process for the preparation of lactams

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL		
AB Present invention is related to a method for prep. lactam represented by the following formula: (I) wherein R = C2-10 alkylene which may be optionally substituted with C1-6 alkyl or phenyl; R = H, C1-6 alkyl, C1-6 hydroxyalkyl, or Ph. The method for prep. lactam comprises an amination reaction using cryst. aluminosilicate zeolites as catalysts under the condition of gas phase in the presence of (a) lactone, (b) amine and/or ammonia, and (c) water. Thus, .gamma.-butyrolactone 10, methylamine 4, and water 6 parts were mixed at 280 and the gas hourly space velocity 5050 h-2 in the presence of ZSM-5 catalyst was packed in a reactor to give N-methyl-2-pyrrolidone with conversion of .gamma.-butyrolactone 99.4% and selectivity N-methyl-2-pyrrolidone 99.0%.		
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